

CHARGE PUMP CIRCUIT

ABSTRACT

Charge pump circuit. A charge pump circuit is provided for use in a phase-lock
5 loop circuit. The charge pump circuit comprises a charge pump core circuit that outputs a
control voltage. The charge pump circuit also comprises a replica circuit that is coupled
to the charge pump core circuit, wherein the replica circuit receives the control voltage
and produces one or more bias signals that are coupled to the charge pump core circuit to
minimize the difference between charge up and charge down currents generated by the
10 charge pump core circuit.